Amir QAYYUM
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Medal of *Chevalier dans l'Ordre des Palmes Académiques* Email: aqayyum@ieee.org



Profile Summary

Professor and Dean of Engineering and Applied Sciences at Riphah International University, Islamabad; PhD in wireless networks from University of Paris-Sud, France, in 2000; 30+ years of research and teaching experience; Numerous research publications with more than 11,960 citations; 7+ years of industry experience as technical manager in networks and protocol stack development; 23+ years of academic management experience as Dean, Director, Chairman; Founder and CEO of CoreNet Systems Ltd.; Founding Director (2007 to date) of Center of Research in Networks and Telecom (CoReNeT); Project Director of many national and international funded research and development projects (2007 to date); Local coordinator of many Erasmus Mundus and Erasmus Plus projects, funded by the European Commission; Technical expertise in network protocols, mobile networking, Internet of things, network security, healthcare sensor networks as well as good understanding of project management and leadership, etc.

Actively involved with several professional organizations; Involved with IEEE since 2004, served as the Chair, IEEE Islamabad Section (2017-2020), Chair Professional Activities (2014-2016), Chair IEEE Computer Society Islamabad Chapter (2009-2014), and the Secretary and Treasurer of the section (2011-2013); since 1997, actively involved with Internet Engineering Task Force (IETF) and is also a co-author of an RFC on MANETs, and Member Fellowship Selection Committee at IETF (2013 to 2017); Since 2012, involved with Internet Corporation for Assigned Names and Numbers (ICANN) and served as a member of ICANN Nominating Committee (2014-2017, 2019-2026) representing ALAC and RSSAC then Chair-Elect, Chair (2022-2025) and Associate Chair, member of ICANN Fellowship Selection Committee (2018 to 2022); member of ICANN Community Excellence Award Selection Panel (2020-2022); Also served as the Chair, Board of Directors of Internet Society (ISOC) Islamabad Chapter (2014-2020); Member Board of Directors of Pakistan Internet Exchange (PKIXP).

Also a philanthropist and actively involved in community service and social work; Chairman, Board of Trustees of Rifah Trust (for education, health care and community service), member Board of Trustees of Ehsas Trust (for education), and member Board of Directors of Meethi Zindagi Foundation (for healthcare of diabetic patients); Founding member Board of Directors of Pak France Alumni Network (PFAN), and also served as its President; Awarded with the medal of "Chevalier dans l'Ordre des Palmes Académiques" in 2019 by the French government; Multi-cultural personality with understanding of many languages and having done extensive tourism around the world.

Experience

- Professor and Dean, Engineering and Applied Sciences; *March 2026 - to date*
  Riphah International University, Islamabad, Pakistan; *www.riphah.edu.pk*
- Founder and CEO; *June 2022 - to date*
  Corenet Systems Ltd.; A startup in intelligent wireless networks, IoT and healthcare sensor networks
- Dean, International Relations; *March 2025 - Feb 2026*
  Capital University of Science and Technology (CUST), Islamabad, Pakistan; *www.cust.edu.pk*
- Professor; *July 2007 - Feb 2026*
  Capital University of Science and Technology (CUST), Islamabad, Pakistan; *www.cust.edu.pk*

- ◇ Dean, External Linkages and International Collaborations (ELIC); *March 2021 - Feb 2025*
  Capital University of Science and Technology (CUST), Islamabad, Pakistan; *www.cust.edu.pk*
- ◇ Dean, Quality Enhancement Cell (QEC); *January 2017 - February 2021*
  Capital University of Science and Technology (CUST), Islamabad, Pakistan; *www.cust.edu.pk*
- ◇ Dean, Faculty of Engineering; *August 2011 - June 2016*
  M. A. Jinnah University, Islamabad, Pakistan; *www.jinnah.edu.pk* then named as **Capital University of Science and Technology** (CUST), Islamabad, Pakistan; *www.cust.edu.pk*
- ◇ Head of Electronic Engineering Department; *September 2010 - August 2011*
  M. A. Jinnah University, Islamabad, Pakistan; *www.jinnah.edu.pk*
- ◇ Chairman, Computer Engineering Department; *May 2004 - July 2007*
  Center for Advanced Studies in Engineering (CASE), Islamabad, Pakistan; *www.case.edu.pk*
  (a postgraduate engineering institute affiliated with Univ. of Engineering & Technology, Taxila, Pakistan)
- ◇ Senior Member Technical; *Jan 2003 - May 2004*
  CARE Pvt. Ltd., Islamabad, Pakistan (a systems engg., turn-key solution provider); *www.carepvtltd.com*
- ◇ Senior Member Technical Staff; *Feb 2001 - Jan 2003*
  Communications Enabling Technologies, Islamabad, Pakistan (an off-shore development office of Avaz Networks Inc., California, USA, a hi-tech start-up in telecom sector; now *www.quartics.com*)
- ◇ Research Engineer; *January 1999-January 2001*
  INRIA, Rocquencourt, France (Research funded by PRIMA project under RNRT (French Network of Research in Telecommunications) program); *www.inria.fr*
- ◇ Research Fellow; *October 1996-January 1999*
  INRIA, Rocquencourt, France (Research funded by Praxitele project under LARA (French Research Initiative for Automated Driving) program); *hipercom.inria.fr*
- ◇ Assistant Engineer; *October 1991-June 1994*
  C.W.O., Rawalpindi, Pakistan

Education

- ◇ **Doctorate** (Ph.D.) in **Mobile Wireless Networks** ; *1996-2000*
  - ▷ Université de Paris-Sud, Orsay, France; *www.u-psud.fr*
- ◇ **M.Sc.** in **Engineering Management** ; *2005-2007 (Gold Medalist)*
  - ▷ University of Engineering and Technology, Taxila, Pakistan; *www.uettaxila.edu.pk*
- ◇ **D.E.A.** in **Parallel Computer Architectures** ; *1995-1996*
  - ▷ Université de Paris-Sud, Orsay, France; *www.u-psud.fr*
- ◇ **M.S.** in **Computer Engineering** ; *1994-1995*
  - ▷ Ecole Supérieure d'Ingénieurs de Marseille, France; *www.esim.fr*, which is later merged in Ecole Centrale de Marseille *www.centrale-marseille.fr*
- ◇ **B.Sc.** in **Electrical Engineering** (specialization in Electronics & Telecommunications) ; *1986-1991*
  University of Engineering and Technology, Lahore, Pakistan; *www.uet.edu.pk*

Project Management

- ◇ Local Project Coordinator of Erasmus Plus Capacity Building Project: Capacity Building for Digital Health Monitoring and Care Systems in Asia - DigiHealth-Asia, funded by European Commission (EUR 950,092), with 4 European partners and 6 Asian partners (2020-2025)
- ◇ PI and Project Coordinator of Erasmus Plus Capacity Building Project: Strategic Support for Accreditation of Programs and Internationalization at South Asian Higher Education Institutes (HEIs) / SSAPI, funded by European Commission (EUR 876,206), with 2 European partners and 9 Asian partners (2020-2024)
- ◇ Co-PI of PHC Peridot Project: Optimization framework for future 5G and beyond green wireless networks, jointly funded by Govt of France and HEC (PKR 1.612 Million), 2021-2023
- ◇ Local Project Coordinator of Erasmus Plus International Credit Mobility Project, with Dublin City University, Ireland, funded by European Commission (2018-2020)
- ◇ Project Director of an R&D project on "3GPP-IMS Compliant E2E Mobile IPTV Solution for 4G/LTE Networks" focusing on IPTV development over IMS platform, and funded by Ignite Technology Fund worth Rs 26.05 Millions (March 2018 - Oct 2019)
- ◇ Local Project Coordinator of Erasmus Plus Merging Voices Project, funded by European Commission, with 4 European partners and 12 Asian partners (2017-2020) *http://mergingvoices.unl.pt/*
- ◇ Project Director of an R&D project on "Framework for Control and Monitoring of Wireless Mesh Networks (WMN) using Software-Defined Networking (SDN)", funded by HEC Pakistan (Rs 1 Million) and Govt of France (Euro 90,000) under the PHC Peridot Program (July 2015 - July 2018)
- ◇ Local Project Coordinator of Erasmus Mundus SmartLink Project, funded by European Commission, with 9 European partners and 11 Asian partners (2014-2018) *www.smartlink-edu.eu*
- ◇ Local Project Coordinator of Erasmus Mundus Leader Project, funded by European Commission, with 6 European partners and 14 Asian partners (2014-2018) *leader.unisannio.it*
- ◇ Project Director of an R&D project on "Design and Development of Hybrid IPv4 and IPv6 Network for QoS Enabled Video Streaming Multicast Application" focusing on IPv6 and adaptive video streaming, and funded by National ICT R&D Fund worth Rs 14.202 Millions (March 2013 - Oct 2014)
- ◇ Local Project Coordinator of Erasmus Mundus Fusion Project, funded by European Commission, with 9 European partners and 11 Asian partners (2013-2017) *www.fusion-edu.eu*
- ◇ Local Project Coordinator of Erasmus Mundus CLink Project, funded by European Commission, with 6 European partners and 8 Asian partners (2012-2016) *www.clink-edu.eu*
- ◇ Project Leader of an R&D project on "Vehicle Based Road/Environment Condition Warning System using Vehicular Ad hoc Networks (VANETs)" encompassing VANET architectures, routing, MAC layer and safety application, with a budget of 103,000 Euro and partially funded by the Govt. of France under the ICT Asia program (Sep 2010 - Dec 2013)
- ◇ Co-Project Director of an R&D project on "Information System for Early Fault Warning in Automotives" funded by National ICT R&D Fund worth Rs 14.34 Millions (Aug 2009 - Jul 2011)
- ◇ Project Leader of an R&D project on "Network based P2P Flow Recognition" focusing on developing classifier, marker and QoS scheduler for P2P traffic in the NayaTel's network (a fiber optic ISP), and funded by NayaTel Pvt Ltd, Islamabad (Feb 2010 - Dec 2011)

- ◇ Project Leader of an R&D project on "EduScope: A New Learning System" focusing on providing education and information through networked computers to street children, and funded by the Internet Society (ISOC), USA (US$ 10,000) (Jan 2010 - Aug 2010)
- ◇ Project Director of an R&D project on "End-to-end Mobility Management Framework for Multi-homed Mobile Devices" focusing on TCP session management, and funded by National ICT R&D Fund worth Rs 14.89 Millions (Sep 2008 - Aug 2011)
- ◇ Project Director of an R&D project on "Design and Implementation of Core Components of 4G Telecom Infrastructure" focusing on IP Multimedia Subsystem (IMS), and funded by National ICT R&D Fund worth Rs 14.88 Millions (Nov 2007 - Apr 2009)

Honors, Awards, Grants and Fellowships

- ◇ Award of "Chevalier dans l'Ordre des Palmes Académiques" by the Government of France, 2019
- ◇ Gold Medalist in M.Sc. Engineering Management, 2007
- ◇ Ministry of Science and Technology Scholarship for M.Sc. and D.E.A. studies in France, 1994 to 1996
- ◇ INRIA scholarship, for development on Hiperlan project, April to September 1996
- ◇ INRIA research fellowship, for Doctorate research and studies, by Praxitele and Prima projects; 1996 to 2000
- ◇ Best Research Paper Award in the IEEE International Multi-topic Conference (INMIC 2001) held on December 28-30, 2001 at Lahore, Pakistan
- ◇ Talent Certificate for outstanding academic performance in M.Sc. Engineering Management, 2006
- ◇ Fellowship from Internet Society (ISOC), USA to attend the 81st Internet Engineering Task Force (IETF) meeting at Quebec City, Canada, July 2011
- ◇ Fellowship from Internet Corporation for Assigned Names and Numbers (ICANN), USA to attend the 45th ICANN Public Meeting at Toronto, Canada, October 2012
- ◇ Fellowship from Internet Corporation for Assigned Names and Numbers (ICANN), USA to attend the 47th ICANN Public Meeting at Durban, South Africa, July 2013
- ◇ Fellowship from Internet Society (ISOC), USA to attend the 88th Internet Engineering Task Force (IETF) meeting at Vancouver, Canada, November 2013
- ◇ Fellowship from Internet Society (ISOC), USA to attend the 95th Internet Engineering Task Force (IETF) meeting at Buenos Aires, Argentina, April 2016
- ◇ Fellowship from Internet Corporation for Assigned Names and Numbers (ICANN), USA to attend the 61st ICANN Public Meeting at San Juan, Puerto Rico, March 2018
- ◇ Fellowship from Internet Corporation for Assigned Names and Numbers (ICANN), USA to attend the 62nd ICANN Public Meeting and Policy Forum at Panama City, Panama, June 2018

Membership of Professional Bodies

- ◇ Senior Member: Institution of Electrical and Electronic Engineers (IEEE), USA, Reg. No. 80194364

- ◇ Senior Member: Association of Computing Machinery (ACM), USA, Reg. No. 6287742
- ◇ Member: Internet Society (ISOC), USA, Reg. No. 20868
- ◇ Professional Member: Pakistan Engineering Council (PEC), Islamabad, Reg. No. Elect / 9682
- ◇ Member: IEEE Computer Society, USA
- ◇ Member: Institute of Engineers Pakistan (IEP), Islamabad, Reg. No. Elect-15818

Research Activities

- ◇ Research interests include Mobile Ad Hoc Networks (MANETs), End-to-end Mobility Management, Wireless Mesh Networks (WMN), Software Defined Networks (SDN), Vehicular Ad Hoc Networks (VANETs), Self Organizing Networks (SON), QoS in IPv6, Multimedia Networks, etc.
- ◇ Supervised many successful M.Sc. and Ph.D. theses in the domain of wired and wireless networks:
  - ▷ PhD: Resource Efficient Multi-dimensional Cache Management Strategies in Content-Centric Networks, by Shahneela Naz, 2018
  - ▷ PhD: Cost-Effective Routing and Cooperative Framework for Opportunistic Networks, by Sadaf Yasmin, 2016
  - ▷ PhD: Adaptive Routing Update Approach for VANET using Local Neighbourhood Change Information, by Chaudhary Muhammad Asim Rasheed, 2014
  - ▷ PhD: End-to-End Mobility Management Framework (EMF) for Multihomed Mobile Devices, by Muhammad Yousaf, 2013
  - ▷ MS: Interconnecting Private Networks via SD-WAN Technologies, by Shahila Sadiq, 2020
  - ▷ MS: Efficient Charging and Scheduling of Electric Vehicles through Load Forecasting Models, by Hassan Khan, 2020
  - ▷ MS: Implementation and Analysis of Adaptive Bit-rate Video Streaming Architecture, by Muhammad Hamza Bin Waheed, 2019
  - ▷ MS: IPv6 Tunneling Protocols: Mathematical and Testbed Setup Performance Analysis, by Abdul Hanan, 2016
  - ▷ MS: Congestion Avoiding Hybrid Wireless Mesh Protocol(CA-HWMP) for IEEE802.11s, Kishwer Abdul Khaliq, 2013
  - ▷ MS: Evaluation of IEEE 802.11n Architecture to Validate its Suitability for VANET as Compared to IEEE 802.11p, by Muhammad Sajjad Akbar, 2011
  - ▷ MS: Performance Evaluation of Recent IPv6 Tunneling Techniques, by Muhammad Aazam, 2011
  - ▷ MS: Performance Evaluation of Adaptive Real Time Video Streaming Multicast Techniques, by Shahneela Naz, 2010
  - ▷ MS: Comparative Study of QoS Performance Metrics for Transmitted Multimedia, by Haroon Sarfraz Raja, 2010
  - ▷ MS: Evaluation and Comparison of IEEE 802.11p and IEEE 802.11b as VANET MAC Schemes, by Saira Andleeb Gillani, 2010
  - ▷ MS: Performance Evaluation of Multicast Protocols for Multimedia Traffic, by Usman Shaukat Qureshi, 2009
  - ▷ MS: Performance Evaluation of End-to-End Mobility Management Solutions for TCP, by Peer Azmat Shah, 2009

- ▷ MS: Investigation of IEEE 802.21 Media Independent Handover Service Suitability for TCP Based Flows in Heterogeneous Mobile Environment, by Muhammad Maaz Rehan, 2009
- ▷ MS: Performance Evaluation of Adhoc Routing Protocols for Vehicular Adhoc Networks, by Imran Khan, 2009
- ▷ MS: A Hybrid Network Architecture for Industrial Deployment of Wireless Sensor Networks, by Mariam Yusuf, 2006
- ▷ MS: Architecture for Decentralized and Distributed Event Management Mechanism for Ubiquitous Computing Environments Using Overlay Networks, by Farooq Umer, 2005

◇ Research activities in the conferences:

- ▷ Program Chair of IEEE International Conference on Emerging Technologies (ICET 2013), held on December 9-10, 2013 at Islamabad, Pakistan
- ▷ Program Chair of IEEE International Conference on Emerging Technologies (ICET 2012), held on October 8-9, 2012 at Islamabad, Pakistan
- ▷ Organizing Chair and Technical Program Committee member for 13th IEEE International Multi-topic Conference (INMIC 2009), held on December 14-15, 2009 at Islamabad, Pakistan; managed all activities including budget, publicity, technical reviews and conference program *www.jinnah.edu.pk/inmic2009*
- ▷ Technical Program Committee member for Third IEEE International Conference on Information and Communication Technologies ICICT2009, to be held on 15-16 August 2009, at Karachi, Pakistan; *http://icict.iba.edu.pk/*
- ▷ Technical Program Committee member for 6th International Workshop on Frontiers of Information Technology (FIT 2008), held on December 18-19, 2008 at Islamabad, Pakistan; *www.fit.edu.pk*
- ▷ Technical Program Committee member for IEEE International Networking and Communications Conference (INCC'08), held on May 1-3, 2008 at Lahore, Pakistan; *suraj.lums.edu.pk/incc2008/*
- ▷ Technical Program Committee member for IEEE International Conference on Emerging Technologies (ICET'06), held on November 13-14, 2006 at Peshawar, Pakistan; *www.icet2006.org*
- ▷ Program Committee member for IEEE International Conference on Electronics and Intelligent Systems (ICEIS'06), held in January, 2006 at Islamabad, Pakistan; *www.iceis2006.net*
- ▷ Technical Program Committee member for IEEE International Conference on Microelectronics (ICM'05), held in December, 2005 at Islamabad, Pakistan; *www.ieee-icm05.org*
- ▷ Technical Program Committee member for High Capacity Optical Networks and Enabling Technologies Conference (HONET'05), held on December 19-21, 2005 at Islamabad, Pakistan; *www.honet.uncc.edu/archives/honet05/*
- ▷ Main organizer and Program Chair of IEEE International Conference on Emerging Technologies (ICET 2005), held on September 17-18, 2005 at Islamabad, Pakistan; managed all activities including budget, publicity, technical reviews and conference program; *www.case.edu.pk/icet2005/*
- ▷ Technical Program Committee member for IEEE International Networking and Communications Conference (INCC'04), held on June 11-13, 2004 at Lahore, Pakistan;
- ▷ Program committee member for Intl. Conf. on Information Systems Analysis and Synthesis (ISAS'03) and Intl. Conf. on Computers, Comm. and Control Technologies (CCCT'03), Orlando, USA, July 2003
- ▷ Scientific committee member for Mobile Ad Hoc Networks Conference, Paris, France, March 2002
- ▷ Technical program committee member for the ACM Symposium on Mobile Ad Hoc Networking & Computing (MobiHoc 2001) held on October 4-5, 2001 at Long Beach, California, USA

- ▷ Served as research paper reviewer for numerous journals and conferences, including **IEEE Transactions** on Mobile Computing, **ACM-MONET** journal's Special Issue on Multipoint Communications and **IEEE InfoCom** conference

Journal Publications / RFC

- ▷ T. Clausen, P. Jacquet, C. Adjih, A. Laouiti, P. Minet, P. Muhlethaler, A. Qayyum and L. Viennot, Optimized Link State Routing Protocol (OLSR), RFC 3626, Internet Engineering Task Force (IETF), October 2003 (6500+ citations)
- ▷ K. Mahmood, I. Hameed, K. Rashid and A. Qayyum, Secure Banking: Authenticating Peer-to-Peer Ad Hoc Interactions, Journal of Applied Sciences, ISSN 1607-8926, Vol 3, No 5, pp346-359, May 2003 (ansi-journals.com/jas/ 2003/346-359.pdf)
- ▷ S. Gillani, I. Khan, S. Qureshi and A. Qayyum, Vehicular Ad Hoc Network (VANET): Enabling Secure and Efficient Transportation System, Technical Journal UET Taxila, Vol 13, ISSN: 1813–1786, 2008
- ▷ E. Elahi and A. Qayyum, Connection oriented bandwidth aggregation system, International Journal of Multidisciplinary Sciences and Engineering (IJMSE), Vol 2, No. 7, pp. 64-68, 2011
- ▷ M. Yousaf, A. Qayyum, and S. A. Malik, "An Architecture for Exploiting Multihoming in Mobile Devices for Vertical Handovers and Bandwidth Aggregation", Springer Wireless Personal Communications Journal, ISSN 0929-6212, Volume 66, Issue 1, pp 57-79, September 2012, DOI: 10.1007/s11277-011-0326-3 (IF2021=0.951)
- ▷ Peer Azmat Shah, Muhammad Yousaf, Amir Qayyum, Halabi. B. Hasbullah, "Performance Comparison of End-to-End Mobility Management Protocols for TCP", Elsevier Journal of Network and Computer Applications (JNCA), ISSN: 1084-8045, Volume 35, Issue 6, pp. 1657-1673, November 2012, DOI: 10.1016/j.jnca.2012.05.002 (IF2021=3.5)
- ▷ S. Naz, Y. Majeed, and A. Qayyum, Automatic translation of heterogeneous data models, International Journal of Computer and Communication Engineering, Vol 1, No 1, p. 35-38, 2012
- ▷ S. Gillani, M. Naeem, R. Habibullah, and A. Qayyum, Semantic schema matching using DBpedia, International Journal of Intelligent Systems and Applications, Vol 5, No. 4, p. 72, 2013 (IF2021=2.313)
- ▷ S. Naz, M. Naeem, and A. Qayyum, Performance evaluation of index schemes for semantic cache, International Journal of Information Technology and Computer Science (IJITCS), Vol. 5, No 4, p. 40, 2013
- ▷ Asim Rasheed, Sana Ajmal and Amir Qayyum, Protocol Independent Adaptive Route Update for VANET, The Scientific World Journal, Vol. 2014, Article ID 403918, 2014, doi:10.1155/2014/403918 (IF2021=1.203)
- ▷ Sana Ajmal, Asim Rasheed, Amir Qayyum, Aamir Hasan, Classification of VANET MAC, Routing and Approaches, A Detailed Survey, Journal of Universal Computer Science, 2014, Volume 20, Issue 4, pp 462-487, ISSN: 0948-695X (IF2021=0.696)
- ▷ Sheneela Naz, Tariq Siraj, Muhammad Sajjad Akbar, Muhammad Yousaf, Amir Qayyum, Mudassir Tufail, Performance Analysis of IPv6 QoS for Multimedia Applications Using Real Testbed, Elsevier Procedia Computer Science 2014, Volume 32, Pages 182-189, https://doi.org/10.1016/j.procs.2014.05.413
- ▷ K. A. Khaliq, M. S. Akbar, A. Qayyum, E. Elahi, and A. Zaheer, "Congestion avoidance hybrid wireless mesh protocol (CA-HWMP) for IEEE 802.11s," Procedia Computer Science, vol. 32, pp. 229–236, 2014

- T. Saraj, M. Yousaf, S. Akbar, A. Qayyum, and M. Tufail, "ISP independent architecture (IIA) for IPv6 packet traversing and inter-connectivity over hybrid (IPv4/IPv6) Internet," Procedia Computer Science, vol. 32, pp. 973–978, 2014.
- Muhammad Sajjad Akbar, Muhammad Saleem Khan, Kishwer Abdul Khaliq, Amir Qayyum, Muhammad Yousaf, Evaluation of IEEE 802.11n for multimedia application in VANET, Elsevier Procedia Computer Science, Volume 32, Pages 953-958, 2014
- Asim Rasheed, Sana Ajmal, Amir Qayyum, Adaptive Routing Update Approach For VANET Using Local Neighbourhood Change Information, Malaysian Journal of Computer Science, Volume 27, Issue 4, Pp 307-327, 2014, ISSN: 0127-9084 (IF2021=0.476)
- Kishwer Abdul Khaliq, Sajjad Hussain, Amir Qayyum, Jürgen Pannek, Novel Data Link Layer Encoding Scheme for Multi-hop Wireless Mesh Network, Elsevier Procedia Computer Science 2015, Volume 52, Pages 665-669, https://doi.org/10.1016/j.procs.2015.05.069
- K. A. Khaliq, A. Qayyum, J. Pannek et al., "Wireless body area networks (WBAN): Architecture, applications and MAC protocols", Abstract of Emerging Trends in Scientific Research, vol. 6, 2016
- Sadaf Yasmin, Rao Naveed Bin Rais, Amir Qayyum, Resource Aware Routing in Heterogeneous Opportunistic Networks, International Journal of Distributed Sensor Networks, Volume 12, No 1, January 2016, ISSN: 1550-1329 (IF2021=1.239)
- Kishwer Abdul Khaliq, Amir Qayyum and Juergen Pannek, Synergies of Advanced Technologies and Role of VANET in Logistics and Transportation, International Journal of Advanced Computer Science and Applications (IJACSA), Vol 7, No 11, pp 359-369, 2016. http://dx.doi.org/10.14569/IJACSA.2016.071148
- Sadaf Yasmin, Rao Naveed Bin Rais, Amir Qayyum, Cooperation in Opportunistic Networks: An Overlay Approach for Destination-Dependent Utility-Based Schemes, Arabian Journal for Science and Engineering, Volume 42, No 2, pp 467-482, 2017, ISSN: 1319-8025 (IF2021=2.334)
- Kishwer Abdul Khaliq, Amir Qayyum and Jurgen Pannek, Performance Analysis of Proposed Congestion Avoiding Protocol for IEEE 802.11s, International Journal of Advanced Computer Science and Applications (IJACSA), 8(2), pg. 356-369, 2017
- Sheneela Naz, Rao Naveed Bin Rais, Peer Azmat Shah, Sadaf Yasmin, Amir Qayyum, Seungmin Rho, Yunyoung Nam, A dynamic caching strategy for CCN-based MANETs, Elsevier Computer Networks, Vol 142, Pp 93-107, 4 September 2018 (IF2021=4.474)
- Kishwer Abdul Khaliq, Syed Muddasar Raza, Omer Chughtai, Amir Qayyum, Jürgen Pannek, Experimental validation of an accident detection and management application in vehicular environment, Elsevier Computers & Electrical Engineering, Volume 71, October 2018, Pages 137-150 (IF2021=1.747)
- Kishwer Abdul Khaliq, Omer Chughtai, Abdullah Shahwani, Amir Qayyum, Jürgen Pannek, An Emergency Response System: Construction, Validation, and Experiments for Disaster Management in a Vehicular Environment, Sensors, Volume 19, Number 5, Pages 1-23, March 2019 (IF2021=3.031)
- Kishwer Abdul Khaliq, Omer Chughtai, Abdullah Shahwani, Amir Qayyum, Jürgen Pannek, Road Accidents Detection, Data Collection and Data Analysis Using V2X Communication and Edge/Cloud Computing, Electronics, Volume 8, Number 8, p. 896, August 2019 (IF2021=1.764)
- Kishwer Abdul Khaliq, Omer Chughtai, Amir Qayyum, Jürgen Pannek, Reorientation of Routing From IP to Link Layer for Path Selection in Multi-Hop Networks, in Global Advancements in Connected and Intelligent Mobility: Emerging Research and Opportunities, IGI Global, 2020, Web. 20 Jan. 2020, Pages 227-252, DOI: 10.4018/978-1-5225-9019-4.ch007

- Editors Anis Laouiti, Amir Qayyum, Mohamad Naufal Mohamad Saad, Vehicular Ad-hoc Networks for Smart Cities, Third International Workshop, 2019, Part of the Advances in Intelligent Systems and Computing book series (AISC, volume 1144), Springer, Singapore, ISBN 978-981-15-3749-3; https://doi.org/10.1007/978-981-15-3750-9

- Syed Sherjeel A. Gilani, Amir Qayyum, Rao Naveed Bin Rais, Mukhtiar Bano, SDNMesh: An SDN Based Routing Architecture for Wireless Mesh Networks, IEEE Access, Vol 8, Pages 136769-136781, 2020, ISSN: 2169-3536, DOI: 10.1109/ACCESS.2020.3011651 (IF2021=3.745)

- Adnan Mahmood Qureshi, Nadeem Anjum, Rao Naveed Bin Rais, Masood Ur-Rehman, Amir Qayyum, Detection of malicious consumer interest packet with dynamic threshold values, PeerJ Computer Science, March 2021, Vol 7, p. e435, https://doi.org/10.7717/peerj-cs.435 (IF2021=3.091)

- Muhammad Hamza Bin Waheed, Faisal Jamil, Amir Qayyum, Harun Jamil, Omar Cheikhrouhou, Muhammad Ibrahim, Bharat Bhushan, Habib Hmam, A New Efficient Architecture for Adaptive Bit-Rate Video Streaming, 2021, Sustainability, Vol 13, No. 8, p. 4541, Special Issue in Machine Learning, Data Mining and IoT Applications in Smart and Sustainable Networks, https://doi.org/10.3390/su13084541 (IF2021=2.576)

- Mukhtiar Bano, Amir Qayyum, Rao Naveed Bin Rais, Syed Sherjeel A. Gilani, Soft-Mesh: A Robust Routing Architecture for Hybrid SDN and Wireless Mesh Networks, IEEE Access, Vol 9, pp 87715-87730, 2021, ISSN: 2169-3536, DOI: 10.1109/ACCESS.2021.3089020 (IF2021=3.745)

- M. Bano, A. Qayyum, R.N.B. Rais and S.S.A. Gilani, Soft-Mesh: A Robust Routing Architecture for Hybrid SDN and Wireless Mesh Networks, revised manuscript submitted in PeerJ Computer Science Journal dated: February 15th, 2021

- Saif Ullah, Amir Qayyum, Socially-Aware Adaptive Delay Tolerant Network (DTN) routing protocol, PLoS ONE 17(1): e0262565, https://doi.org/10.1371/journal.pone.0262565, Published: January 27, 2022

- Saira Ahmed, Amir Qayyum, Azza Malik and Hassan Ali, Youth Communicators as an Engine for Sustainable Development: A Case Study for Achieving SDGs in Remote Higher Education Institutions, Chapter 16 in The Wiley Handbook of Sustainability in Higher Education Learning and Teaching; Editors: Kelum A Gamage and Nanda Gunawardhana, pp 317-332, ISBN: 978-1-119-85283-4, Published 30 March 2022

Conference Publications / Research Reports

- P. Jacquet and A. Qayyum, Wireless Networks - Hiperlan, Belgacom Conference, Brussels, Belgium, August 1996

- A. Qayyum, Comparison of CSMA and CSMA with Active Signaling in Wireless LANs, 6th Open Workshop on High Speed Networks (HSN'97), Stuttgart, Germany, 8-9 October 1997

- M. S. Corson, S. Papademetriou, P. Papadopoulos, V. Park and A. Qayyum, An Internet MANET Encapsulation Protocol (IMEP) Specification, Internet Draft, draft-ietf-manet-imep-spec-01.txt, 21 August, 1998

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